

MAR 18 2004

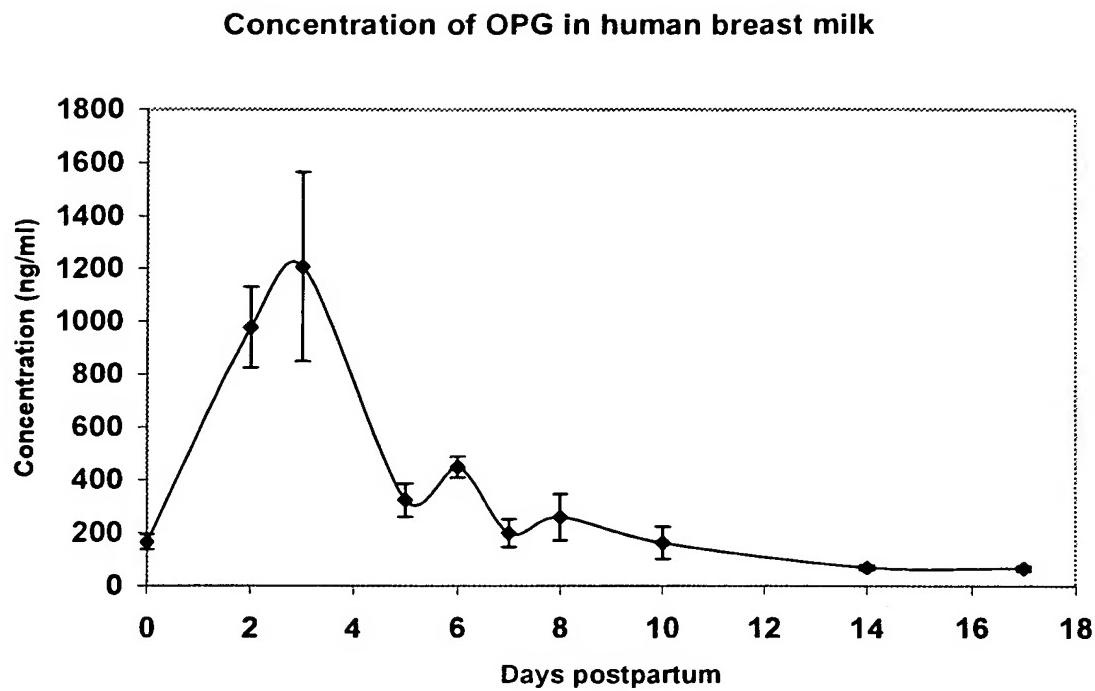
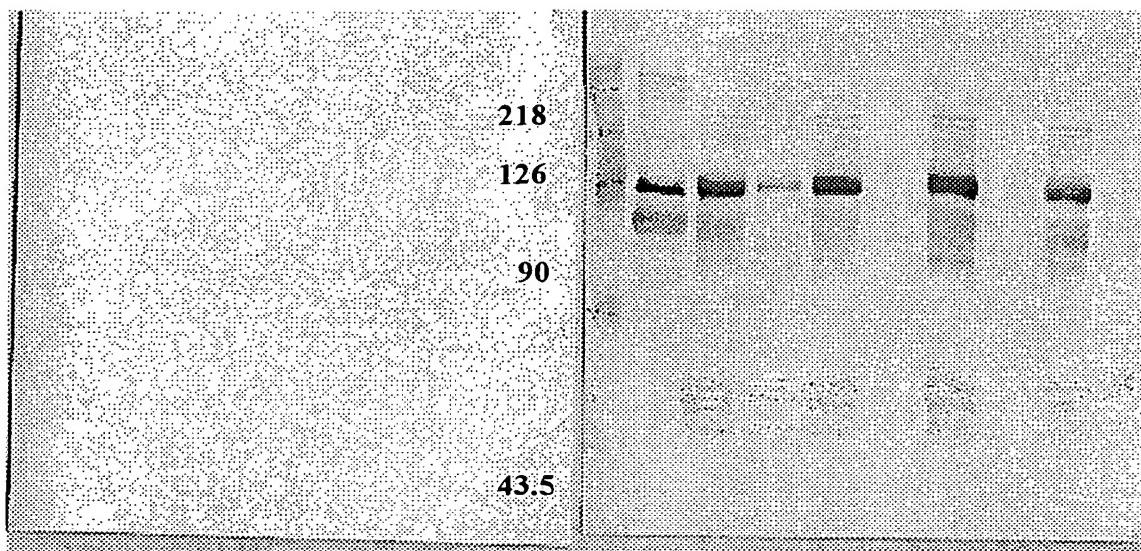


Fig. 1

M.W



Recombinant OPG Skimmed milk
Cream (wash)
Whey (ultracentrifugation)
Casein (ultracentrifugation)
Sweet whey
Rennet casein
Acid whey
Acid casein

Recombinant OPG Skimmed milk
Cream (wash)
Whey (ultracentrifugation)
Casein (ultracentrifugation)
Sweet whey
Rennet casein
Acid whey
Acid casein

Fig. 2

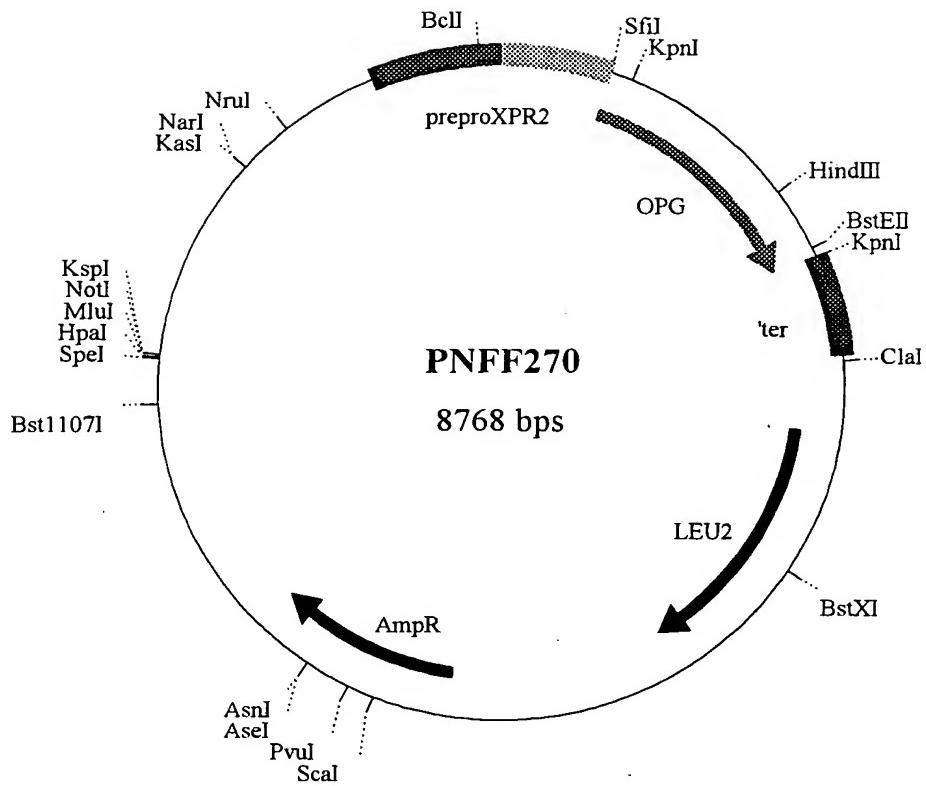


Figure 3

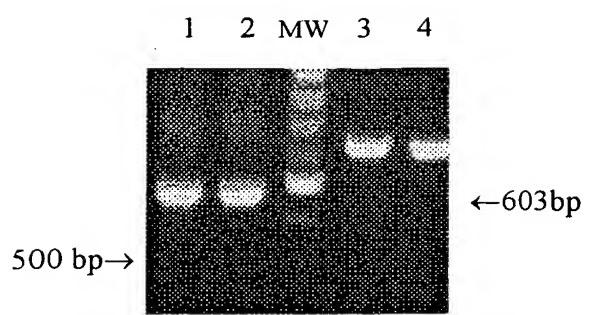


Figure 4

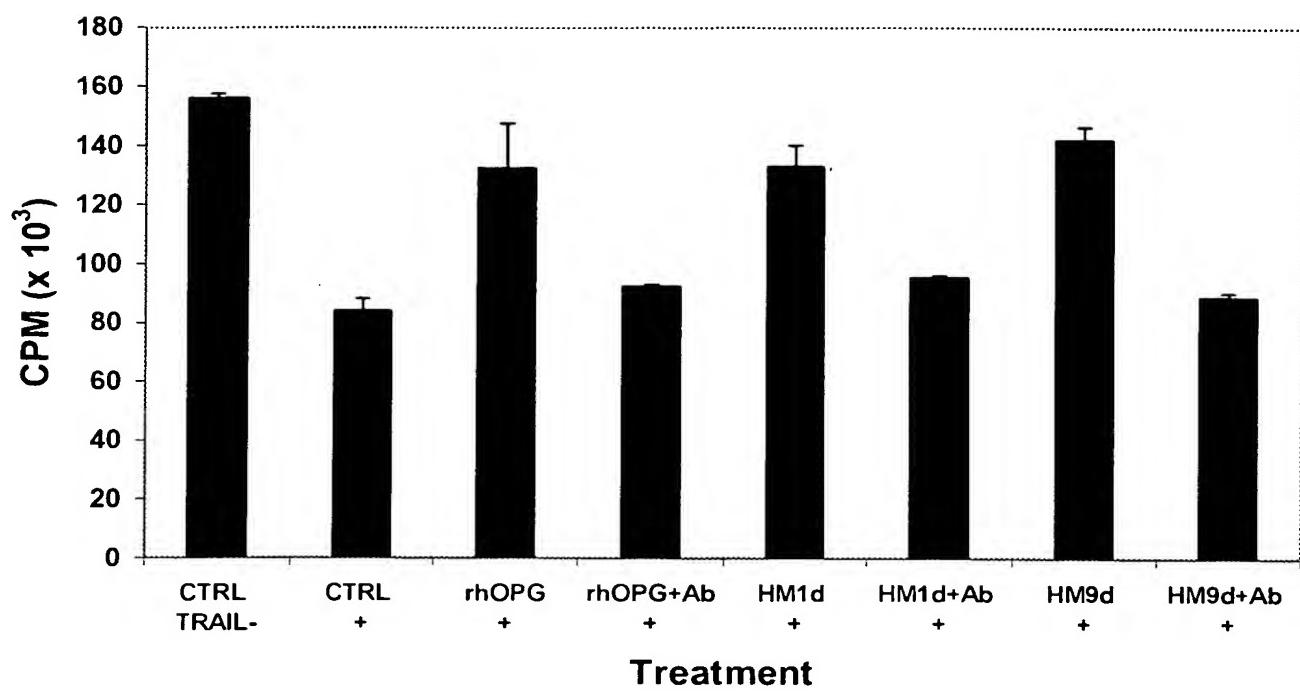


Figure 5

MKLATAFTILTAVLAAPLAAPAPAPDAAPAAVPEGAAAAYSSILSVVAKQSKKFKHHKR
DLDEKDQFIVVFDSSATVDQIASEIQKLDLSVDEDSSNGITSALDPVYTDGSGFLGFVG
KFNSTIVDKLKESSVLTVEPDTIVSLPEIPASSAAKRETFPPKYLHYDEETSHQLLCDKC
PPGTYLQHCTAKWKTVCAPCPDHYYTDSWHTSDECLYCSPVCKELQYVKQECNRTHNRV
CECKEGRYLEIEFCLKHRSCPPGFGVVQAGTPERNTVCKRCPDGFFSNETSSKAPCRKHT
NCSVFGLLLTKGNATHDNICSGNSESTQKGIDVTLCEEAFFRFAVPTKFTPNWLSVLV
DNLPGTKVNAESVERIKRQHSSQEQTFLQLKLWKHQNKAQDIVKKIIQDIDLCENSVQRH
IGHANLTFEQLRSLMESLPGKKVGAEDIETIKACKPSDQILKLLSLWRIKNGDQDTLKG
LMHALKHSKTYHFPKTVTQSLKKTIRFLHSFTMYKLYQKLFLEMIGNQVQSVKISCL

Figure 6

	1	<u>TCCGGCCTCTCGGCC</u> gccaagcga	GAAACGTTCTCTCAAAGTACCTTCATTATGACGA	60
	1	xpr2	E T F P P K Y L H Y D E	12
5	61	AGAAAACCTCTCATCAGCTGTTGTGTGACAAATGTCCTCTGGTACCTACCTAAAACAACA		120
	13	E T S H Q L L C D K C P P G T Y L K Q H		32
	121	CTGTACAGCAAAGTGGAGACCGTGTGCGCCCCCTGCCCTGACCAACTACACAGACAG		180
	33	C T A K W K T V C A P C P D H Y Y T D S		52
10	181	CTGGCACACCAGTGACGAGTGTCTATACTGCAGCCCCGTGTGCAAGGAGCTGCAGTACGT		240
	53	W H T S D E C L Y C S P V C K E L Q Y V		72
	241	CAAGCAGGAGTGCAATCGACCCACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCT		300
15	73	K Q E C N R T H N R V C E C K E G R Y L		92
	301	TGAGATAGAGTTCTGCTTGAACACATAGGAGCTGCCCTCTGGATTGGAGTGGTGCAAGC		360
	93	E I E F C L K H R S C P P G F G V V Q A		112
20	361	TGGAACCCCAGAGCGAAATACAGTTGCAAAAGATGTCAGATGGTTCTCTCAAATGA		420
	113	G T P E R N T V C K R C P D G F F S N E		132
	421	GACGTCATCTAAAGCACCTGTAGAAAACACACAAATTGCACTGTCTTGGTCTCTGCT		480
	133	T S S K A P C R K H T N C S V F G L L L		152
25	481	AACTCAGAAAGGAATGCAACACACGACAACATATGTTCCGGAAACAGTGAATCAACTCA		540
	153	T Q K G N A T H D N I C S G N S E S T Q		172
	541	AAAATGTGGAATAGATGTTACCTGTGTGAGGAGGCATTCTCAGGTTGCTGTTCTAC		600
30	173	K C G I D V T L C E E A F F R F A V P T		192
	601	AAAGTTACGCTTAACGGCTTAGTGTCTGGTAGACAATTGCTGGCACCAAAGTAAA		660
	193	K F T P N W L S V L V D N L P G T K V N		212
	661	CGCAGAGAGTGTAGAGAGGATAAACGGCAACACAGCTCACAGAACAGACTTCCAGCT		720
35	213	A E S V E R I K R Q H S S Q E Q T F Q L		232
		C		
	721	GCTGAAGTTATGGAAACATCAAACAAAGACCAAGATATAGTCAGAAGATCATCCAAGA		780
	233	L K L W K H Q N K D Q D I V K K I I Q D		252
		A		
40	781	TATTGACCTCTGTGAAAACAGCGTGCAGCGGCACATTGGACATGCTAACCTCACCTCGA		840
	253	I D L C E N S V Q R H I G H A N L T F E		272
	841	GCAGCTTCGTAGCTTGATGAAAGCTTACCGGGAAAGAAAGTGGGAGCAGAACAGATTGA		900
45	273	Q L R S L M E S L P G K K V G A E D I E		292
	901	AAAAACAATAAAGGCATGCAAACCCAGTGACCAAGATCCTGAAGCTGCTAGTTGTGGCG		960
	293	K T I K A C K P S D Q I L K L L S L W R		312
	961	AATAAAAAATGGCGACCAAGACACCTTGAAGGGCTAATGCACGCACTAAAGCACTAAA		1020
50	313	I K N G D Q D T L K G L M H A L K H S K		332

Figure 7. Sequence of milk OPG.

5
1021 GACGTACCACTTCCAAAAGTCACTCAGAGTCTAAAGAAGACCATCAGGTTCTTCA 1080
333 T Y H F P K T V T Q S L K K T I R F L H 352

1081 CAGCTTCACAATGTACAAATTGTATCAGAAGTTATTTTAGAAATGATAGGTAAACCGT 1140
353 S F T M Y K L Y Q K L F L E M I G N Q V 372

1141 CCAATCAGTAAAAATAAGCTGCTTATAACTAGTATCACTAGT 1182
10 373 Q S V K I S C L 380

Figure 7. Sequence of milk OPG. (Continued)